

Effects of Essential Oils on Shelter Dog Behavior

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Shelter environments are stressful for dogs due to loud noises and unfamiliar surroundings. Dogs rely heavily on scent information, and exposure to some scents has shown reductions in activity and vocalizations in shelter dogs. We investigated the effects of two calming (lavender and vetiver) and two stimulating (lemon and rosemary) essential oils on crate position and active, resting, and stress behaviors. Observations were conducted for 5-min intervals eight times per week, with observations split between baseline and scent exposure. Our preliminary analysis using the Wilcoxon Signed-Rank test found that dogs exposed to lavender (n = 13), lemon (n = 9), rosemary (n = 9), and vetiver (n = 12) did not show a significant difference in crate position, stress behavior, or resting behavior. However, active behaviors decreased during exposure to rosemary (Wilcoxon Statistic = 19.5, $p = 0.02$) as compared to baseline. There was no significant change in active behaviors with the other scents. The lack of a difference in the dog's behavior while exposed to the essential oils may indicate that scent enrichment may not be enough to have significant calming effects on the dogs, but it did not have any apparent negative effects on the dog's behaviors.

Keywords: shelter dog; scent enrichment; essential oil; lavender; vetiver; rosemary; lemon; behavior: activity; calming